Fujitsu AIT Solution

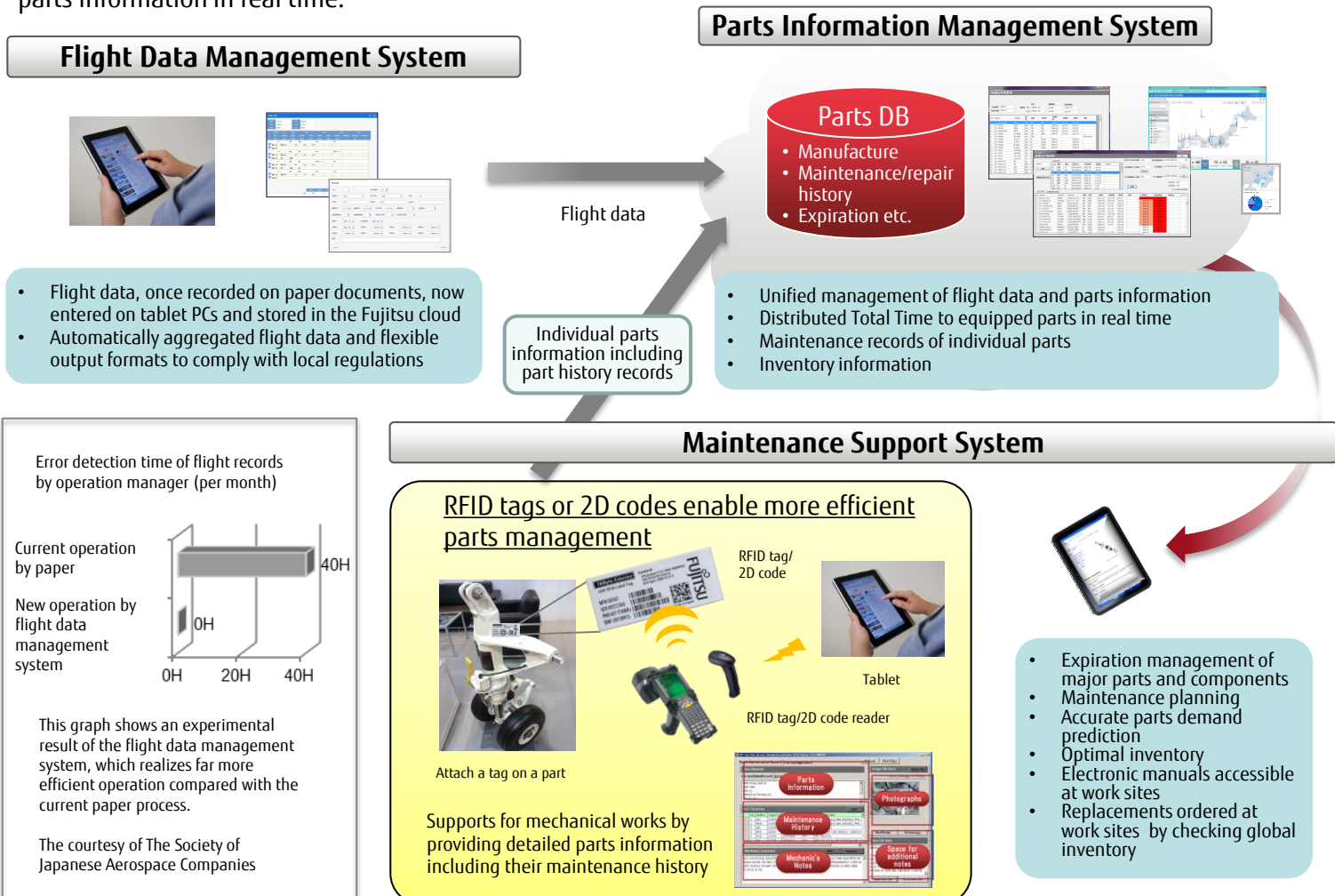## – Safe and efficient operational control of helicopters –

*AIT: Automated Identification Technology (e.g. bar code, RFID etc.)

Create new values by collecting accurate "individual parts information"

Fujitsu AIT Solution manages individual parts status and location in real time, which is essential for product support, by attaching AIT tags such as RFID tag and 2D code to each parts, and scanning them without errors in the operation and maintenance. Fujitsu AIT Solution enables its users to share information over departments or even corporations by accumulating "individual parts information" just like medical records. Further Fujitsu AIT Solution increases the accuracy of parts traceability by integrating and analyzing each part information with existing inventory and transaction information. Finally, Fujitsu AIT Solution realizes optimal supply chain management by efficient part usage and optimal parts deployment.

## Flight data and parts information management system for helicopter operators

Fujitsu offers flight data and parts management system integrated with the AIT solution for more efficient helicopter operation management. Since this system is offered by SaaS, customers can access to they system anytime and anywhere via internet, as well as be released from burdensome system maintenance. This management system prevents input failure and improves daily management of flight data, by allowing users to input flight data directly to the system on table PCs, which will eventually replaces paper documents. This system also refines maintenance because of unified data management between flight time and parts operating time; the flight data are reflected to parts information in real time.

Parts Information Management System

Flight Data Management System

Parts DB
- Manufacture
- Maintenance/repair history
- Expiration etc.

Flight data

- Flight data, once recorded on paper documents, now entered on tablet PCs and stored in the Fujitsu cloud
- Automatically aggregated flight data and flexible output formats to comply with local regulations

Individual parts information including part history records

- Unified management of flight data and parts information
- Distributed Total Time to equipped parts in real time
- Maintenance records of individual parts
- Inventory information

Error detection time of flight records by operation manager (per month)

Current operation by paper

New operation by flight data management system

40H

0H

0H   20H   40H

This graph shows an experimental result of the flight data management system, which realizes far more efficient operation compared with the current paper process.

The courtesy of The Society of Japanese Aerospace Companies

Maintenance Support System

RFID tags or 2D codes enable more efficient parts management

RFID tag/ 2D code

Tablet

RFID tag/2D code reader

Attach a tag on a part

Parts Information

Photographs

Maintenance History

Space for additional notes

Mechanic's Notes

Supports for mechanical works by providing detailed parts information including their maintenance history

- Expiration management of major parts and components
- Maintenance planning
- Accurate parts demand prediction
- Optimal inventory
- Electronic manuals accessible at work sites
- Replacements ordered at work sites by checking global inventory

shaping tomorrow with you

■ Flight Data Management System

SaaS Flight Data Management

- The Flight Data Management System offers SaaS application to release pilots from the current tangled paper work.

- Pilots can access to this system anytime/anywhere and enter flight records on PCs or tablets.

- This system is designed to reduce human errors by providing error checking functions and automatic aggregation of flight time, flight cycles, engine start numbers, and so on.
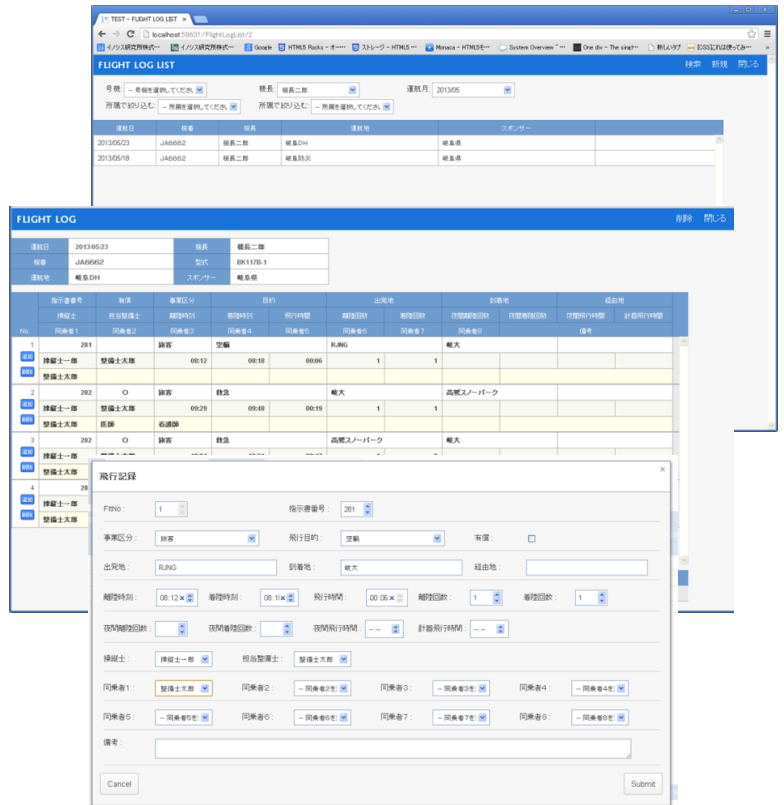
Output in Flexible Formats

- Calculation of data entered by pilots is done instantly after the entry.

- Summary reports are available in flexible formats.

- These reports assist operation managers' reporting work defined by local regulations.

- Operation managers can set up and modify master data such as pilots, helicopters, flight purposes, and so on.

■ Maintenance Support System

Failure Report / Inventory Search

- By combining flight data and individual parts information, the Maintenance Support System reduces the workload of mechanics to transcribe flight data to multiple inspection/maintenance reports.

- Mechanics can create failure report on tablets and add detailed information at their office with PCs.

- This system allows mechanics to search inventory on tablets, individual part information including its maintenance or transaction history.
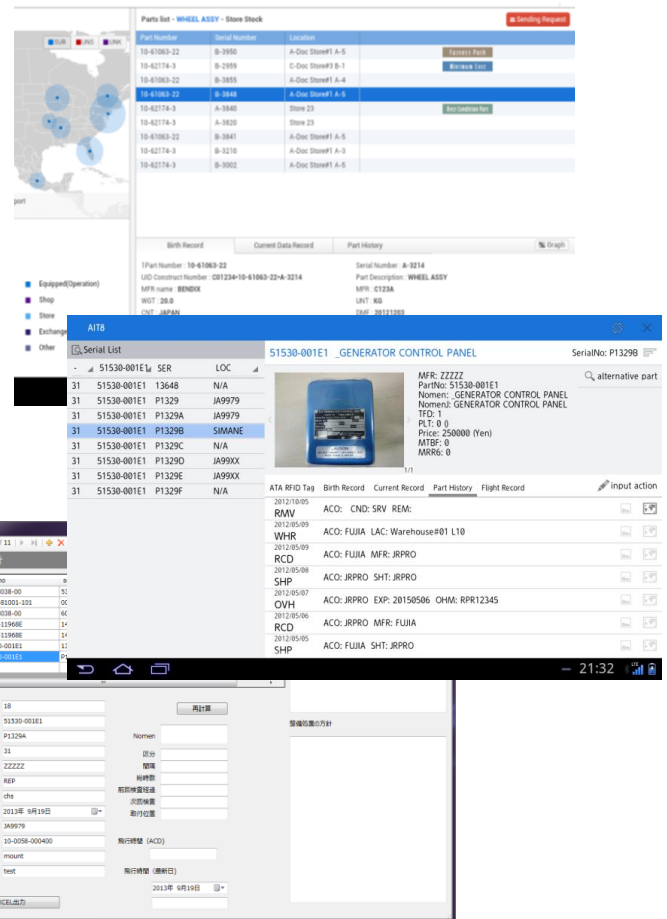

Individual Parts Management

- The AIT Solution assists mechanics to obtain part information without errors by scanning AIT tags attached onto parts.

- This system improves the efficiency of mechanic work as follows:

  - Mechanics scan parts and give simple input such as "Install" or "Remove".
  - Then the system completes necessary transactions.
  - For example, removed parts are taken off from aircraft configuration.
  - Removal record contains all related information such as their working hour.
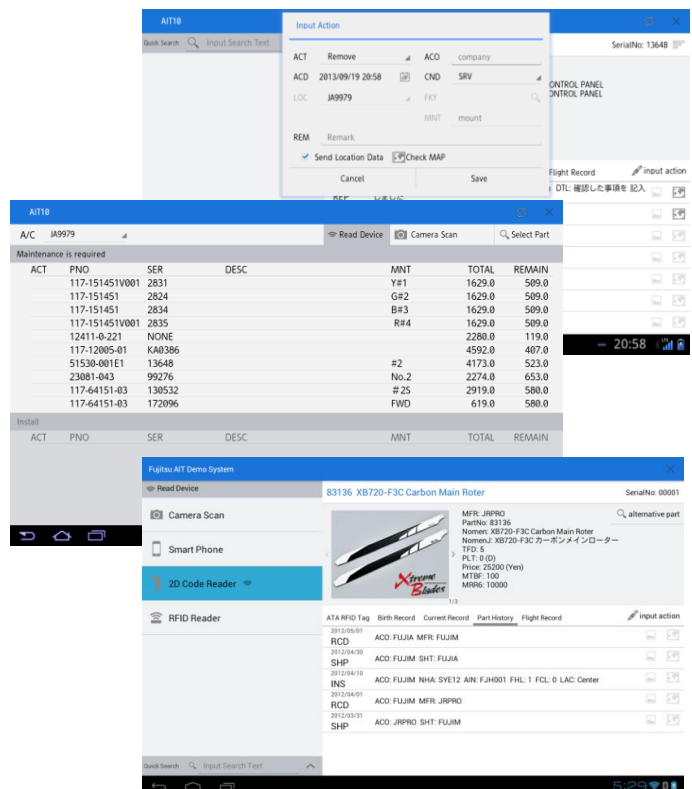
■ Parts Information Management System

Inventory Management / Maintenance Planning

- Just like ordinal ERP systems, the Parts Information Management System collects individual information and provide inventory information, inventory spread out multiple locations.

- This system offers maintenance planning tool, using the remaining life of parts, simulation of flight time, and inventory information.

- Work order can be created with information available on the system.
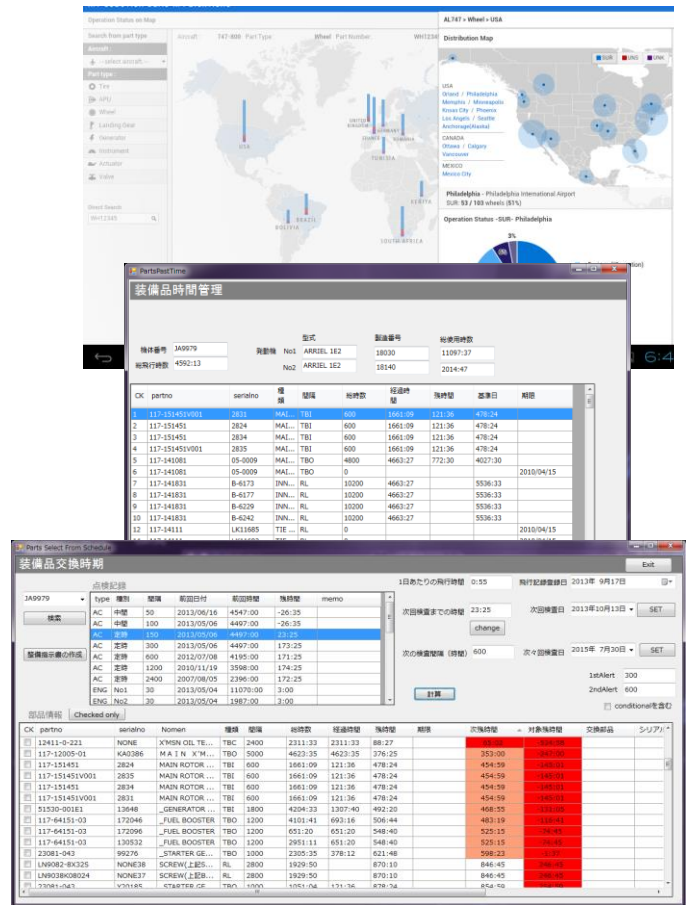
■ System Overview

- System on Fujitsu Data Center

- Client application on tablets and PCs

- RFID tags or 2D code are optional service

- Hardware devices are excluded in the service

- Flexible development depending on customer needs

- Comprehensive support for implementation operation and maintenance

ALTI METER
CAGE: SH787
P/N: ADH653
S/N: 676543

Tablet for field work   PC for office work

Parts DB

Helicopter Support System on Fujitsu Cloud